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Conference Abstract

Leveraging the Benefits of Open Data Services for Natural History Collection Management

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Abstract

The value of data present in natural history collections for research and collection management cannot be overstated. Naturalis Biodiversity Center, home to one of the largest natural history collections in the world, completed a large-scale digitisation project resulting in the registration of more than 38 million objects, many of them annotated with descriptive metadata, such as geographic coordinates and multimedia content. While digitisation is ongoing, we are now also looking for ways to leverage our digital collection, both for the benefit of collection management and that of networking with other natural history collections.

To this end, we developed the Netherlands Biodiversity Data Services, providing centralized access to our collection data via state of the art, open access interfaces. Full, centralized access to the digital collection allows us to combine the data with other sources, such as collection scans focusing on the physical condition and accessibility of the collection. But also with data from external sources, such as the collection information of sister institutions, allowing for combining and comparing data, and exploring areas where collections can reinforce each other.

Focusing on availability and accessibility, the services were deliberately designed as a versatile, low-level API to allow the use of our data with a broad variety of applications and services. These applications range from scientific research and remote mobile access to

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collection information, to “mash ups” with other data sources, apps and application in our own museum. We will demonstrate this range of applications through several examples, including the embedding of data in websites (example, Dutch Caribbean Species Register: http://www.dutchcaribbeanspecies.org/linnaeus_ng/app/views/species/nsr_taxon.php?id=177968&cat=165), use in the development of deep learning models, thematic portals (example, Naturalis meteorite collection: http://bioportal.naturalis.nl/result?theme=meteorites&language=en) and the development of Java- and R-clients.

This presentation ties in with Max Caspers' presentation “Advancing collections management with the Netherlands Biodiversity Data Services“, in which he will demonstratie the potential of the services described in this presentation for the area of collections management, specifically.

Keywords

open data, digital collection, collection dashboards, collection profile, API

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